facilitate mounting the reel and the flanges **48***a* and **48***b* on the fingers stop the reel so that it is properly positioned axially on the hub. The size of passage **50** is such that the finger segments of each pair are deflected toward one another so the tips **46***a* and **46***b* frictionally grip the passage **50** wall when the hub is stationary so that the reel will not disengage from the hub. Yet, the reel can be slid easily on and off the hub.

When hub **16** is rotated in one direction or the other, the reel and specifically the wall of passage **50** exerts a certain amount of frictional drag on the finger segment tips **46***a*, **46***b*. Thus, if the hub rotation is clockwise, the segments **30***a*, **30***b* are deflected counterclockwise. As pointed out above, this caused the effective length of segments **30***a* to increase so that tips **46***a* tightly engage the passage **50** wall. As a result, the reel **18** is locked firmly to the hub. The segments **38***b*, being effectively shortened, do not grip the reel.

On the other hand, when the hub is rotated counterclockwise, the segments **30***b* operate to grip the reel in the above manner, while the segments **30***a* are inactive.

Thus, each set of finger segments functions somewhat like the sprags in a one-way sprag clutch. That is, they flex to permit relative rotation between the hub and reel in one direction. but to lock the two together when the relative rotation is in the opposite direction. In this case, however, the clutching action of the two sets of finger segments complement one another so that the reel **18** is locked to hub **16** if there is any relative rotation between the hub and reel.

As soon as rotation of hub **16** ceases, the finger segments resume their original positions so that reel **18** can easily be slid off the hub for replacement. Of course, the hub **16** also operates in much the same way to lock the reel when the hub is freewheeling and the reel is rotated by a capstan advancing the tape.

Thus, the present tape reel hub positively locks the tape reel when it is rotated in either direction, yet permits the reel to be placed on and removed from the hub with a minimum amount of effort when the hub is stopped. Also the hub is simple to mold out of conventional rugged, long-lasting materials. Therefore, it is relatively inexpensive to make and requires essentially no maintenance.

The invention accordingly comprises the features of construction, combination of elements, and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the invention will be indicated in the claims.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described.

I claim:

1. A hub for mounting a reel comprising:

A. a central core for rotation about a shaft axis, and

B. at least one set of bifurcated fingers extending radially from said core, each finger having:

1. an outer surface adapted for engaging a reel, and

2. an inner portion hingedly connected to said core along a line parallel to the shaft axis, said inner portion and central core being integrally formed of a resilient material.

2. A hub as recited in claim **1** including an integral stop means disposed in an axial termination of said fingers.

3. A hub as recited in claim **1** wherein each of said fingers has a beveled portion at an axial termination of said outer surface.

4. A hub as recited in claim **1** wherein each of said fingers includes an enlarged central portion.

5. A tape drive system including:

A. a rotatable hub composed of a resilient material and comprising as integral portions thereof,

1. a central core for rotation about a shaft axis,

2. a plurality of equidistantly, circumferentially spaced sets of bifurcated fingers extending along and radially from said central core,

3. each of said fingers having an outer portion terminating in an outer surface and all said fingers defining a circle with a first diameter,

4. each of said fingers having an inner portion hingedly connecting to said core along a line parallel to said shaft axis, and

B. an annular tape reel with a cylindrical mounting surface having a second diameter less than the first diameter, whereby mounting said reel causes said fingers to deflect and frictionally engage said reel-mounting surface subsequent relative motion in one direction causing corresponding ones of said fingers in each set to deflect outwardly about the hinge lines in each set to increase frictional engagement and produce a positive drive connection between said hub and said reel.

6. A system as recited in claim **5** wherein said hub fingers are beveled at one axial termination at said outer portion to facilitate reel loading, said hub additionally including an integral enlarged flange portion at the other axial termination to position said reel axially on said hub.

7. A system as recited in claim **6** wherein each of said fingers has a central portion of maximum thickness tapering to decreased thicknesses at the inner and outer portions thereof.

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